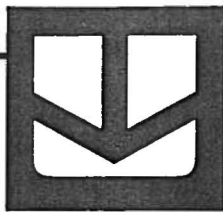


N60201.AR.000762  
NS MAYPORT  
5090.3a

SOURCE REMOVAL AND SAMPLING REPORT FOR BUILDING 1338 UNDERGROUND  
STORAGE TANK 1342 NS MAYPORT FL  
11/29/2004  
UNIVERSAL ENGINEERING SCIENCES





# UNIVERSAL

## ENGINEERING SCIENCES

### SOURCE REMOVAL AND SAMPLING REPORT

Mayport Naval Base, Bldg. 1338, UST N 1342  
Mayport, Duval County, Florida

UES Project No. 92147-001-01  
Report No. 24596  
November 29, 2004

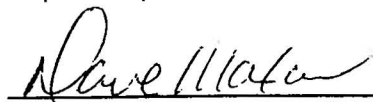
*Prepared For:*

Johnson Controls/Hill  
P.O. Box 77, Building 105  
NAS Jacksonville, Florida 32212

*Prepared By:*

Universal Engineering Sciences, Inc  
5561 Florida Mining Boulevard South  
Jacksonville, Florida 32257  
(904) 296-0757

Report Preparation:



David S. Maxam, P.G.  
Senior Geologist  
Florida License No. 2281

Review & Certification:



Steven G. McNall, P.E.  
Environmental Engineering Manager  
Florida License No. 59227

**CONSULTANTS:**

Geotechnical Engineering ▪ Environmental Sciences ▪ Construction Materials Testing ▪ Threshold Inspection

**OFFICES:** Daytona Beach ▪ Jacksonville ▪ DeBary ▪ St. Augustine ▪ Orlando ▪ Gainesville  
Fort Myers ▪ Rockledge ▪ West Palm Beach ▪ Ocala ▪ Tampa ▪ Hollywood





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• Sarasota, FL  
• St. Augustine, FL  
• Tampa, FL  
• West Palm Beach, FL

November 29, 2004

Maurice Cates  
Sr. Environmental Coordinator  
Johnson Controls/Hill  
P.O. Box 77, Building 105  
NAS Jacksonville, Florida 32212

Reference: **Source Removal and Sampling Report, UST N1342**  
Mayport Naval Base, Bldg. 1338/UST N1342  
Mayport, Duval County, Florida  
UES Project No. 92147-001-01 and Report No. 24596

Dear Mr. Cates:

Universal Engineering Sciences, Inc. (UES) has completed the source removal and sampling in association with an active oil/water separator located near Bldg. 1338. This location is illustrated in the USGS Site Location Plan in **Figure 1 (Appendix A)**. The purpose of this investigation was to field screen soil for volatile organic compounds (VOCs) within the existing oil/water separator excavation and collect a soil and groundwater sample for laboratory analysis to confirm that all contaminated soil and groundwater that was originally present from within the excavation had been removed.

## SITE HISTORY

On January 20, 2004 UES observed the removal and replacement of the sump system associated with the on-site oil/water separator and underground storage tank (UST). The closure activities were conducted by Guardian Fueling Technologies, Inc. A copy of the report describing these field activities entitled "Limited Tank Closure Assessment" is attached in **Appendix B**.

As a part of the closure activities, one soil sample was collected along the perimeter of the UST area for laboratory analysis. Several petroleum constituents were detected in the soil sample (SS-1), however, none had concentrations above each of the respective Florida Department of Environmental Protection's (FDEP) Soil Cleanup Target Levels (SCTLs). These types of constituents detected were normally detected in "old" petroleum releases. Since the soil sample was collected from within the "smear" zone (the area of seasonal groundwater fluctuation), it was recommended that a temporary monitoring well be installed



for the collection of a groundwater sample. A list of analytical constituents detected is provided in the previous report presented in **Appendix B**.

## SOIL SAMPLING AND ANALYSES AND SOIL REMOVAL

Site activities occurred on September 20, 2004. The dimensions of the excavation were 11 feet X 11 feet, as shown on the scaled drawing **Figure 2 (Appendix A)**. Soil was field screened for VOCs by utilizing a Heath Consultants Detecto-Pak III flame ionization detector (FID). In order to determine the FID concentration of a soil sample, UES filled a clean mason jar two-thirds full with soil from each location and sealed the lid with aluminum foil. A measurement was read with and without a methane filter. The methane filter reading was subtracted from the unfiltered reading to give a corrected, or net reading. All soil that exceeded 50 parts per million (ppm) net on the FID or was visibly contaminated, was placed inside a 55-gallon drum for future disposal by Johnson Controls/Hill through the NS Mayport Part B Facility. The highest FID net reading measured was from B-6/S-1 (2 feet below grade). This measurement was 200 ppm. This soil sample was submitted to Environmental Conservation Laboratories, Inc. (ENCO) for analysis by Environmental Protection Agency (EPA) Methods 8260 (Volatile Organics), 8270 (Polynuclear Aromatic Hydrocarbons) and Total Petroleum Hydrocarbons (Florida Petroleum Residual Organics). Soil sampling locations are provided in **Figure 2 (Appendix A)**.

Please refer to **Table 1** for the net results of our VOC soil screening:

Table 1: VOC Soil Screening (Net Results in ppm)					
DEPTH B.L.S. (feet)	B-1	B-2	B-3	B-4	B-5
2	0	0	0	0	0
DEPTH B.L.S. (feet)	B-6	B-7	B-8	B-9	B-10
2	200	0	0	0	0
DEPTH B.L.S. (feet)	B-11	B-12	B-13	B-14	B-15
2	0	0	0	0	0
DEPTH B.L.S. (feet)	B-16	B-17	B-18		
2	0	0	0		





The soil analytical data obtained from B-6/S-1 indicated the presence of toluene at the laboratory detection limit (1.0 milligram per kilogram (mg/kg)) and TPH at 21 mg/kg. Both of the aforementioned contaminant concentrations are below the FDEP SCTLs for Leachability Based on Groundwater Criteria as well as the Residential Direct Exposure SCTL. A slightly abbreviated list of Method 8260 analytes were run by ENCO during this most recent investigation as the full Method 8260 soil results from the previous investigation indicated that only xylenes, naphthalene and 2-butanone were detected above lab detection limits.

## GROUNDWATER SAMPLING AND ANALYSES

On September 20, 2004, a temporary monitoring well was advanced by hand auger and installed into the water table so that a groundwater sample could be collected for laboratory analysis. UES attempted to place the well beneath the location where the soil sample was collected (B-6/S-1). While hand augering at this location below the soil sample depth, UES could not advance the hand auger to a depth beneath the groundwater table. Groundwater was encountered at approximately 2.5 feet below surface. Therefore, UES relocated the monitoring well to a location slightly outside of the existing excavation. The depth of this monitoring well was approximately 4 feet, with the monitoring well containing 5 feet of screen including a bottom plug. This location is illustrated as GW-1 on **Figure 2 (Appendix A)**. Before a groundwater sample was collected for laboratory analysis, the monitoring well was developed to remove most of the suspended solids that were present. All development water was poured into the same drum which contained the contaminated soil and was labeled for disposal by Johnson Controls/Hill at OWS 1343/UST N1417.

The groundwater sample obtained from GW-1 was analyzed by ENCO for EPA Methods 8260 (Volatile Organics), 8270 (Polynuclear Aromatic Hydrocarbons) and Total Petroleum Hydrocarbons (Florida Petroleum Residual Organics). A slightly abbreviated list of Method 8260 analytes were run by ENCO during this most recent investigation as the full Method 8260 soil results from the previous investigation indicated that only xylenes, naphthalene and 2-butanone were detected above lab detection limits. The groundwater analytical data obtained from GW-1 indicated that all analyses were below the laboratory detection limits. Both soil and groundwater laboratory analytical data is included in **Appendix C**.

## CONCLUSIONS

The soil and groundwater samples collected at the site were from the area in the excavation that contained the highest field VOC measurements. The contaminated soil from this area was removed and drummed for future disposal. Approximately 15 gallons of soil and 5 gallons of groundwater were drummed. No disposal manifests are included as part of this report, since the client has assumed responsibility for disposal of the





material.

Both confirmatory soil and groundwater samples were submitted for laboratory analysis and were determined to be below laboratory detection limits or respective cleanup target levels. UES believes that no further assessment or remedial activities are necessary in conjunction with this release.

## LIMITATIONS

This limited assessment was completed by David S. Maxam, P.G., Professional Geologist, and reviewed by Steven G. McInall, P.E., Professional Engineer, both employees of UES.

This report is intended for the use of Mr. Maurice Cates and Johnson Controls/Hill, the U.S. Navy, the City of Jacksonville Environmental Quality Division, and the Florida Department of Environmental Protection. Its contents may not be relied upon by any other parties without the explicit written consent of UES. This is not a statement of suitability of the property for any use of purpose.

The findings of this report represent our professional judgement; no warranty is expressed or implied. These findings are relevant to the dates of our site work and the information cited herein. This report should not be relied upon to represent site conditions on other dated or at locations other than those specifically cited within the report. UES can accept no responsibility for interpretations of these data made by other parties.

As with all assessments, the level of information obtained is a function of both time and budgetary constraints. Due to these constraints, every square foot of soil and groundwater can not be tested. Therefore, virtually all environmental site assessments can not provide total certainty of the presence or absence of contamination.

We greatly appreciate the opportunity to offer our environmental services to you on this project. Please contact our office if you have any questions regarding this report.

Respectfully submitted,

**UNIVERSAL ENGINEERING SCIENCES, INC.**



David S. Maxam, P.G.  
Senior Project Geologist



Steven G. McInall, P.E.  
Environmental Engineering Manager





# **APPENDIX A**

## **Figures**



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ENGINEERING SCIENCES

SOURCE REMOVAL AND SAMPLING  
MAYPORT BLDG. 1338/N1342  
MAYPORT, FLORIDA

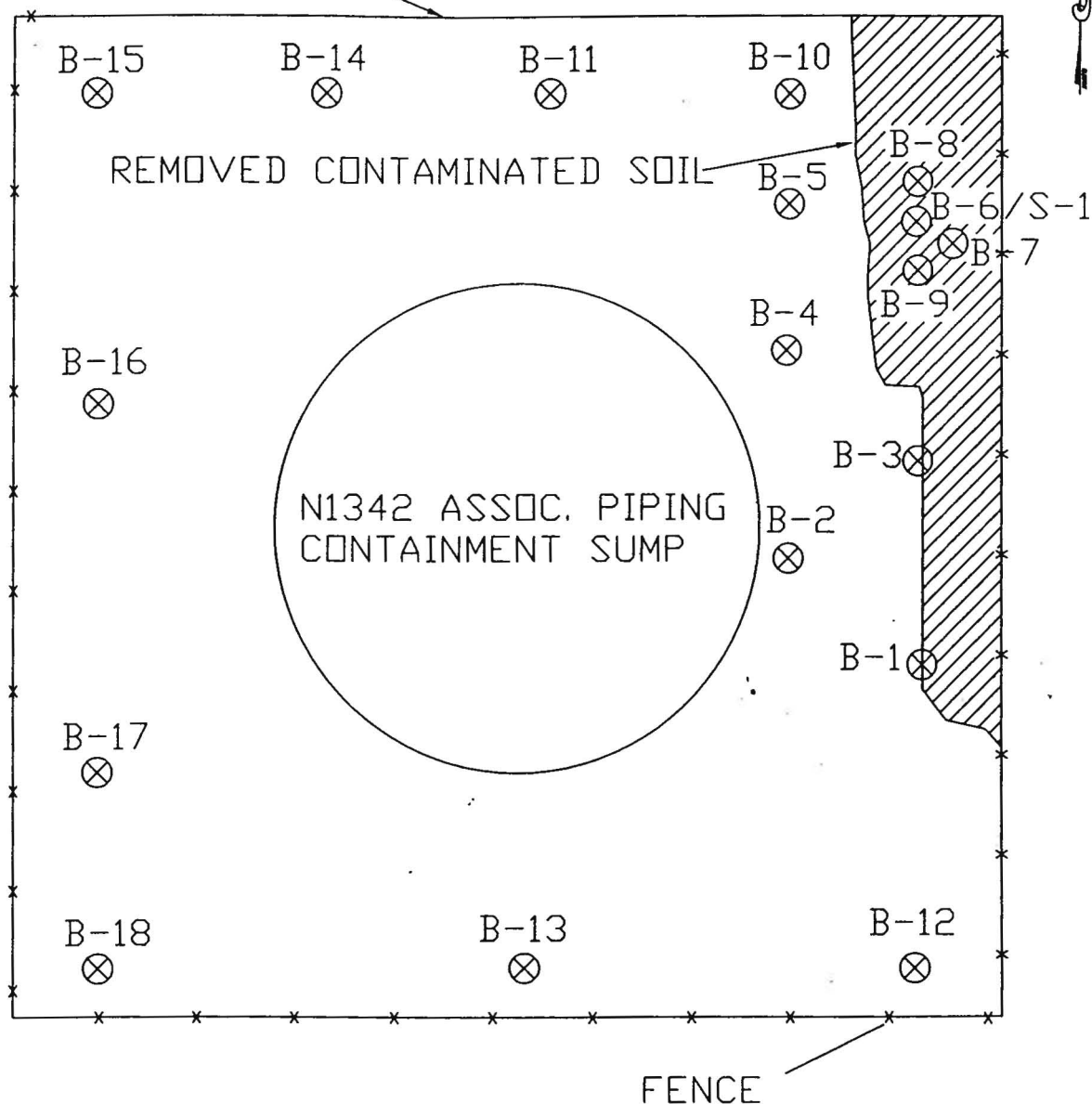
## USGS SITE LOCATION MAP

REMOVED BY: DS	DATE: 9/22/04	CHECKED BY: DM	DATE: 9/22/04
SCALE: 1"=2,000'	ORDER NO: 92147-001-01	REPORT NO: 24596	PAGE NO: A-1



OUTER LIMITS OF ORIGINAL  
EXCAVATION

GW-1



NOTES:

- 1.) Water table depth is approximately 2 ft.
- 2.) Soil sample B-6/S-1 contained 200 parts per million (ppm) net volatile organics measured by flame ionization detector, all other measurements were 0.0 ppm.
- 3.) Groundwater sample GW-1 was collected from a temporary monitoring well installed at a depth of 4 ft.



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SOURCE REMOVAL & SAMPLING REPORT  
MAYPORT BLDG 1338  
MAYPORT, FLORIDA

SOIL & GROUNDWATER SAMPLING LOCATIONS

REVISED BY: DS	DATE: 9/22/04	CHECKED BY: DM	DATE: 9/22/04
SCALE: 1" = 2'	ORDER NO: 92147-001-01	REPORT NO: 24596	PAGE NO: A-2



## **APPENDIX B**

### **Limited Tank Closure Assessment**



**LIMITED TANK CLOSURE ASSESSMENT**

**Mayport Naval Station  
Building 1338  
Jacksonville, Florida**

**UES Project No. 91329-015-01  
Report No. 22062**

**February 2004**

*Prepared For:*

**Environmental Resource Management  
Environmental Quality Division  
117 West Duval Street, Suite 225  
Jacksonville, Florida 32202**

*Prepared By:*

**Universal Engineering Sciences, Inc  
5561 Florida Mining Boulevard South  
Jacksonville, Florida 32257  
(904) 296-0757**

Report Preparation:

Review & Certification:

---

Vincent S. Price  
Staff Engineer

---

Steven G. McInall, P.E.  
Environmental Engineering Manager  
Florida License No. 59227



February 3, 2004

Mr. Tom Griffin  
Environmental Resource Management (ERM)  
Environmental Quality Division  
117 West Duval Street, Suite 225  
Jacksonville, Florida 32202

Reference: **Limited Closure Summary Report**  
Mayport Naval Station  
Building 1338  
Jacksonville, Duval County, Florida  
UES Project No. 91329-015-01 and Report No. 22062

Dear Mr. Griffin:

Universal Engineering Sciences, Inc. (UES) has completed the Limited Closure Summary Report for the above referenced property. The purpose of this assessment was to inspect the removal and replacement of the sump system associated onsite oil-water separator and UST. The closure activities were conducted by Guardian Fueling Technologies, Inc. on January 20, 2004.

In addition to the standard Limited Tank Closure Assessment (TCA) activities, soil samples were collected for organic vapor analysis (OVA). These soil screening activities were conducted at the request of Johnson Control Hill (Mayport Naval Station's main contractor). Soil OVA samples were collected along the perimeter of the UST area (SB-1 along the south side, SB-2 along the north side, SB-3 along the east side). The UST/sump area consisted of a few inches of soil and grass on top of three feet of gravel. The top soil and gravel areas did not emit petroleum vapors. A summary of our findings are included in Table 1.

Table 1 – Soil Organic Vapor Screening Results					
Soil Sample	Depth (feet BLS)	Total OVA Measurement (ppm)	Filtered Reading (ppm)	Net OVA Reading (ppm)	Observations
SB-1	4	0	0	0	No Petroleum Odor
SB-2	4	15	0	15	No Petroleum Odor
SB-3 / SS-1	4	60	0	60	Slight Petroleum Odor



Based on the results of the OVA screening activities and our observations, elevated petroleum vapors were detected in SB-3.

As a result of our OVA screening activities and observations, one laboratory soil sample was collected from the location of SB-3. After collection, the samples were placed on ice and transported to Environmental Conservation Laboratories, Inc. (ENCO) located in Jacksonville, FL for laboratory analysis by FL PRO, EPA Methods 8260, 8270 and 8 RCRA Metals. The ENCO laboratory analytical data report is included with this report. The soil sample was collected to determine if the elevated OVA reading was an indication of soil petroleum contamination. Table 2 contains a summary of the petroleum constituents detected in the soil sample.

Table 2 – Summary of Constituents Detected				
Constituents	SS-1 (ug/kg)	Residential Direct Exposure Limit (ug/kg)	Commercial Direct Exposure Limit (ug/kg)	Leachability Based on Groundwater Criteria (ug/kg)
Acetone*	54	780,000	5,500,000	2,000
2-Butanone	21	3,100,000	21,000,000	17,000
Total Xylenes	6.1	5,900,000	40,000,000	200
Naphthalene	48	40,000	270,000	1,700
Acenaphthalene	78	1,900,000	18,000,000	2,100
Fluorene	67	2,200,000	28,000,000	160,000
Phenanthrene	430	2,000,000	30,000,000	250,000
Anthracene	94	18,000,000	260,000,000	2,500,000
Fluoranthene	310	2,900,000	48,000,000	1,200,000
Pyrene	270	2,200,000	37,000,000	880,000
Chrysene	170	140,000	450,000	77,000
Benzo (a) anthracene	120	1,400	5,000	32,000
Benzo (b) fluoranthene	98	15,000	52,000	25,000
Benzo (k) fluoranthene	51	1,400	4,800	10,000
Benzo (a) pyrene	82	100	500	8,000
Indeno (1,2,3-cd) pyrene	48	1,500	5,300	28,000
Benzo (g,h,i) perylene	63	2,300,000	41,000,000	32,000,000
Chromium	3,300	140,000	450,000	77,000
Lead	4,200	400,000	920,000	***
<b>Bold</b> indicates an exceedance of one or more of the FDEP standards. Detected in lab blank at 26 ug/kg *** = Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.				

According to the lab results, several petroleum constituents were detected in the soil sample, however, none of the constituents detected were above the FDEP SCTLs. The constituents detected are normally detected in "old" petroleum releases. The impacts to the soil quality are minimal. Since the sample was collected within the smear zone



(area of seasonal groundwater fluctuation), it is recommended that a well be installed for the collection of a groundwater sample.

A Site Plan and photographs of the tank area are included with this letter. According to the client, a copy of the FDEP Limited Closure Summary Report Form will be forwarded to the ERM with this letter.

Please do not hesitate to contact our office if you have any further questions regarding this report.

Respectfully submitted,

**UNIVERSAL ENGINEERING SCIENCES, INC.**

Vincent S. Price  
Staff Engineer

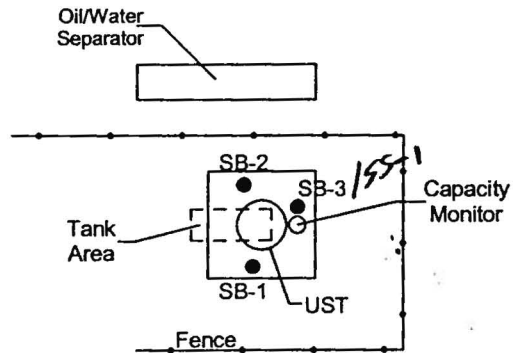


Steven G. McInall, P.E.  
Environmental Engineering Manager  
Florida License No. 59227

G:\vprice\Tank Closure Assessments\22062.Mayport Bldg 1338  
G:\vprice\ Tank Closure Assessments\22062.Mayport Bldg 1338-coverpg



BUILDING #1338



LAMP ROAD



**UNIVERSAL**  
ENGINEERING SCIENCES

**LIMITED TANK CLOSURE ASSESSMENT  
MAYPORT NAVAL STATION - BUILDING #1338  
JACKSONVILLE, FLORIDA**

**SITE PLAN**



DRAWN BY: LML

DATE: 2/3/04

CHECKED BY: VSP

DATE: 2/3/04

SCALE: 1"=10'

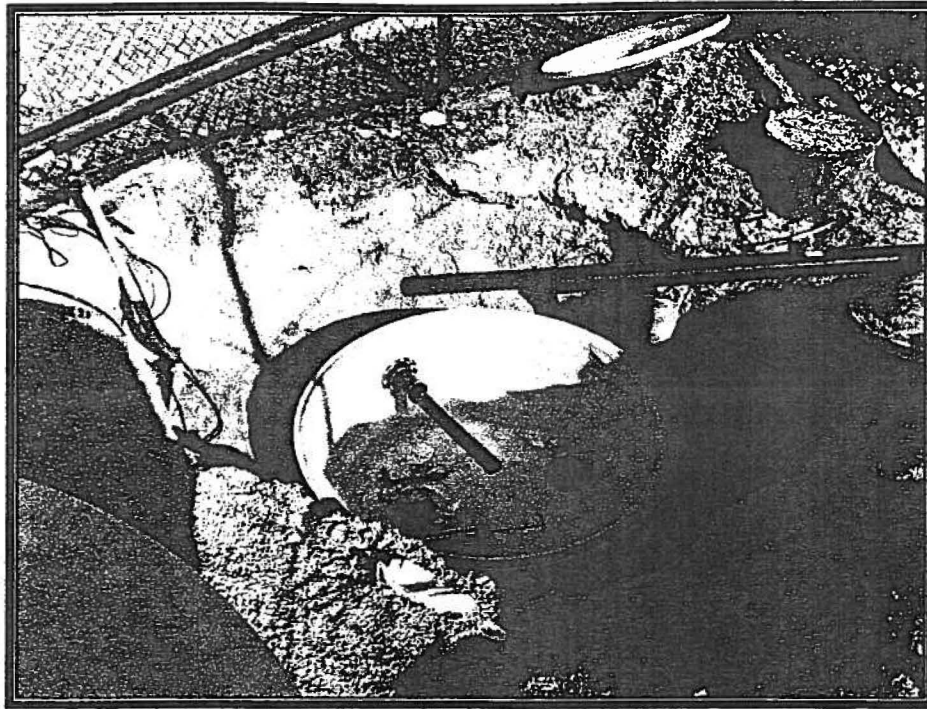
ORDER NO. 91329-015-01

REPORT NO: 22062

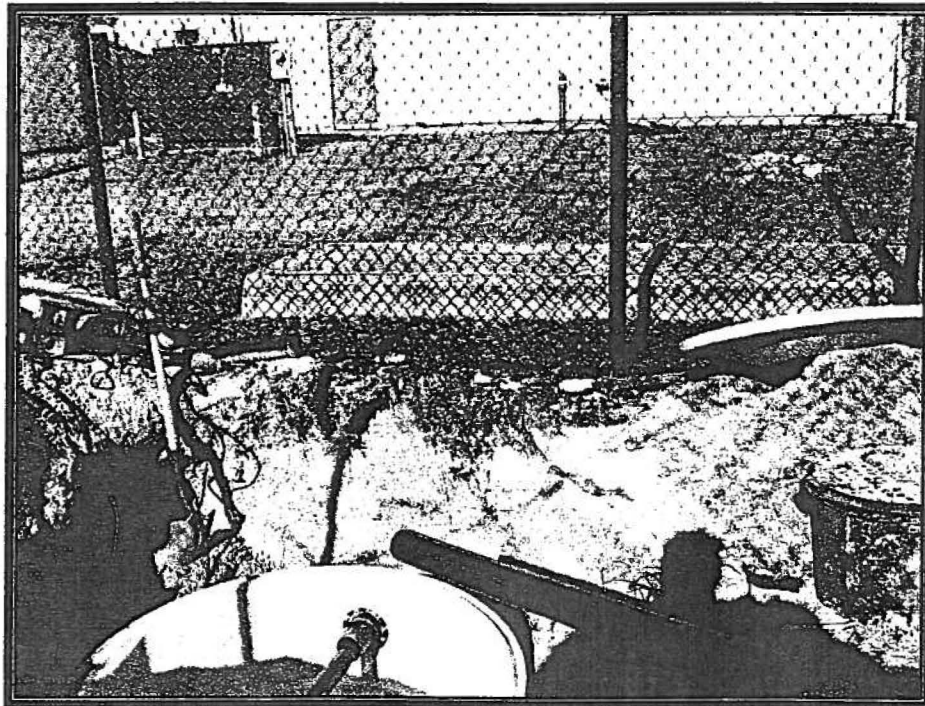
PAGE NO. FIGURE 1



**Site Photographs**  
**Limited Tank Closure Assessment**  
**Mayport Building 1338**



**Photograph 1: View of the oil-water separator sump.**



**Photograph 2: View of the oil-water separator system.**



Environmental Conservation Laboratories, Inc.  
4810 Executive Park Court, Suite 211  
Jacksonville, Florida 32216-6069  
904 / 296-3007  
Fax 904 / 296-6210  
www.encolabs.com



DHRS Certification No. E82277

CLIENT : Universal Engineering Sciences  
ADDRESS: 5561 Florida Mining Blvd South  
Jacksonville, FL 32257

REPORT # : JAX36762  
DATE SUBMITTED: January 20, 2004  
DATE REPORTED : January 23, 2004

PAGE 1 OF 8

ATTENTION: Mr. V. Price

#### SAMPLE IDENTIFICATION

Samples submitted and  
identified by client as:

REFERENCE: BLDG 1338 LTCA

01/20/04

JAX36762-1 : SS-1 @ 12:00

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. This data has been produced in accordance with NELAC Standards (May, 2001). This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

Note: Analytical values are reported on a dry weight basis.

PROJECT MANAGER

A handwritten signature in black ink, appearing to read "Scott D. Martin".  
\_\_\_\_\_  
Scott D. Martin



## ENCO LABORATORIES

REPORT # : JAX36762

DATE REPORTED: January 23, 2004

REFERENCE : BLDG 1338 LTCA

PAGE 2 OF 8

## RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>SS-1</u>	<u>LAB</u> <u>BLANK</u>	<u>Units</u>
Dichlorodifluoromethane	2.1 U	2.0 U	ug/Kg
Chloromethane	1.1 U	1.0 U	ug/Kg
Vinyl Chloride	1.1 U	1.0 U	ug/Kg
Bromomethane	1.1 U	1.0 U	ug/Kg
Chloroethane	1.1 U	1.0 U	ug/Kg
Trichlorofluoromethane	1.1 U	1.0 U	ug/Kg
1,1-Dichloroethene	1.1 U	1.0 U	ug/Kg
Acetone	54	31	ug/Kg
Carbon Disulfide	21 U	20 U	ug/Kg
Methylene Chloride	11 U	14	ug/Kg
t-1,2-Dichloroethene	1.1 U	1.0 U	ug/Kg
Methyl tert-butyl ether	1.1 U	1.0 U	ug/Kg
1,1-Dichloroethane	1.1 U	1.0 U	ug/Kg
2,2-Dichloropropane	2.1 U	2.0 U	ug/Kg
c-1,2-Dichloroethene	1.1 U	1.0 U	ug/Kg
2-Butanone	21	20 U	ug/Kg
Chloroform	1.1 U	1.0 U	ug/Kg
1,1,1-Trichloroethane	1.1 U	1.0 U	ug/Kg
Carbon tetrachloride	1.1 U	1.0 U	ug/Kg
1,1-Dichloropropene	1.1 U	1.0 U	ug/Kg
Benzene	1.1 U	1.0 U	ug/Kg
1,2-Dichloroethane	1.1 U	1.0 U	ug/Kg
Trichloroethene	1.1 U	1.0 U	ug/Kg
1,2-Dichloropropane	1.1 U	1.0 U	ug/Kg
Dibromomethane	1.1 U	1.0 U	ug/Kg
Bromodichloromethane	1.1 U	1.0 U	ug/Kg

U = Compound was analyzed for but not detected to the level shown.



## ENCO LABORATORIES

REPORT # : JAX36762

DATE REPORTED: January 23, 2004

REFERENCE : BLDG 1338 LTCA

PAGE 3 OF 8

## RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>SS-1</u>	<u>LAB BLANK</u>	<u>Units</u>
2-Chloroethyl vinyl ether	6.4 U	6.0 U	ug/Kg
c-1,3-Dichloropropene	1.1 U	1.0 U	ug/Kg
4-Methyl-2-pentanone	21 U	20 U	ug/Kg
Toluene	1.1 U	1.0 U	ug/Kg
t-1,3-Dichloropropene	1.1 U	1.0 U	ug/Kg
1,1,2-Trichloroethane	1.1 U	1.0 U	ug/Kg
Tetrachloroethene	3.2 U	3.0 U	ug/Kg
1,3-Dichloropropane	1.1 U	1.0 U	ug/Kg
2-Hexanone	21 U	20 U	ug/Kg
Dibromochloromethane	1.1 U	1.0 U	ug/Kg
1,2-Dibromoethane	1.1 U	1.0 U	ug/Kg
Chlorobenzene	1.1 U	1.0 U	ug/Kg
1,1,1,2-Tetrachloroethane	1.1 U	1.0 U	ug/Kg
Ethylbenzene	1.1 U	1.0 U	ug/Kg
m-Xylene & p-Xylene	4.3	2.0 U	ug/Kg
o-Xylene	1.8	1.0 U	ug/Kg
Styrene	1.1 U	1.0 U	ug/Kg
Bromoform	1.1 U	1.0 U	ug/Kg
Isopropylbenzene	1.1 U	1.0 U	ug/Kg
1,1,2,2-Tetrachloroethane	1.1 U	1.0 U	ug/Kg
Bromobenzene	1.1 U	1.0 U	ug/Kg
1,2,3-Trichlorobenzene	1.1 U	1.0 U	ug/Kg
n-Propylbenzene	1.1 U	1.0 U	ug/Kg
2-Chlorotoluene	1.1 U	1.0 U	ug/Kg
1,3,5-Trimethylbenzene	1.1 U	1.0 U	ug/Kg
4-Chlorotoluene	1.1 U	1.0 U	ug/Kg

U = Compound was analyzed for but not detected to the level shown.



## ENCO LABORATORIES

REPORT # : JAX36762

DATE REPORTED: January 23, 2004

REFERENCE : BLDG 1338 LTCA

PAGE 4 OF 8

## RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>SS-1</u>	<u>LAB BLANK</u>	<u>Units</u>
tert-Butylbenzene	1.1 U	1.0 U	ug/Kg
1,2,4-Trimethylbenzene	1.1 U	1.0 U	ug/Kg
s-Butylbenzene	1.1 U	1.0 U	ug/Kg
1,3-Dichlorobenzene	1.1 U	1.0 U	ug/Kg
p-Isopropyltoluene	1.1 U	1.0 U	ug/Kg
1,4-Dichlorobenzene	1.1 U	1.0 U	ug/Kg
n-Butylbenzene	1.1 U	1.0 U	ug/Kg
1,2-Dichlorobenzene	1.1 U	1.0 U	ug/Kg
1,2-Dibromo-3-chloropropane	1.1 U	1.0 U	ug/Kg
1,2,4-Trichlorobenzene	1.1 U	1.0 U	ug/Kg
Hexachlorobutadiene	1.1 U	1.0 U	ug/Kg
Naphthalene	2.0	1.0 U	ug/Kg
1,2,3-Trichloropropane	1.1 U	1.0 U	ug/Kg
Bromochloromethane	1.1 U	1.0 U	ug/Kg

Surrogate:

	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane	110	108	61-128
D8-Toluene	98	98	77-119
Bromofluorobenzene	83	82	60-130
Date Prepared	01/20/04 15:05		
Date Analyzed	01/23/04 13:25	01/23/04 12:49	

U = Compound was analyzed for but not detected to the level shown.



ENCO LABORATORIES

REPORT # : JAX36762

DATE REPORTED: January 23, 2004

REFERENCE : BLDG 1338 LTCA

PAGE 5 OF 8

RESULTS OF ANALYSIS

EPA METHOD 8270 -  
PAH Compounds by SIM

	SS-1		LAB BLANK	Units
Naphthalene	48 D1		3.3 U	ug/Kg
2-Methylnaphthalene	39 U D1		3.3 U	ug/Kg
1-Methylnaphthalene	39 U D1		3.3 U	ug/Kg
Acenaphthylene	39 U D1		3.3 U	ug/Kg
Acenaphthene	78 D1		3.3 U	ug/Kg
Fluorene	67 D1		3.3 U	ug/Kg
Phenanthrene	430 D1		3.3 U	ug/Kg
Anthracene	94 D1		3.3 U	ug/Kg
Fluoranthene	310 D1		3.3 U	ug/Kg
Pyrene	270 D1		3.3 U	ug/Kg
Chrysene	170 D1		3.3 U	ug/Kg
Benzo(a)anthracene	120 D1		3.3 U	ug/Kg
Benzo(b)fluoranthene	98 D1		3.3 U	ug/Kg
Benzo(k)fluoranthene	51 D1		3.3 U	ug/Kg
Benzo(a)pyrene	82 D1		3.3 U	ug/Kg
Indeno(1,2,3-cd)pyrene	48 D1		3.3 U	ug/Kg
Dibenzo(a,h)anthracene	39 U D1		3.3 U	ug/Kg
Benzo(g,h,i)perylene	63 D1		3.3 U	ug/Kg

Surrogate:

	% RECOV	% RECOV	LIMITS
p-Terphenyl	76	66	19-162
Date Prepared	01/20/04	01/20/04	
Date Analyzed	01/22/04 07:02	01/21/04 23:24	

Miscellaneous	METHOD	SS-1	LAB BLANK	Units
Percent Solids	WETS/72	84	NA	%
Date Prepared		01/23/04		
Date Analyzed		12/30/99		

NA = Analysis not applicable for this sample.

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:10 dilution.



ENCO LABORATORIES

REPORT # : JAX36762

DATE REPORTED: January 23, 2004

REFERENCE : BLDG 1338 LTCA

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RESULTS OF ANALYSIS

<u>TOTAL METALS</u>	<u>METHOD</u>	<u>SS-1</u>	<u>LAB BLANK</u>	<u>Units</u>
Arsenic	6010	0.60 U	0.50 U	mg/Kg
Date Analyzed		01/22/04 20:56	01/22/04 20:03	
Barium	6010	24 U	20 U	mg/Kg
Date Analyzed		01/22/04 20:55	01/22/04 20:03	
Cadmium	6010	1.0 U	1.0 U	mg/Kg
Date Analyzed		01/22/04 20:56	01/22/04 20:03	
Chromium	6010	3.3	1.0 U	mg/Kg
Date Analyzed		01/22/04 20:56	01/22/04 20:03	
Lead	6010	4.2	1.0 U	mg/Kg
Date Analyzed		01/22/04 20:56	01/22/04 20:03	
Selenium	6010	2.0 U	2.0 U	mg/Kg
Date Analyzed		01/22/04 20:56	01/22/04 20:03	
Silver	6010	2.0 U	2.0 U	mg/Kg
Date Analyzed		01/22/04 20:55	01/22/04 20:03	
Mercury	7471	0.010 U	0.010 U	mg/Kg
Date Analyzed		01/21/04 15:22	01/21/04 14:18	
<u>EPA METHOD FLPRO -</u>				
<u>PETROL. RESIDUAL ORG.</u>		<u>SS-1</u>	<u>LAB BLANK</u>	<u>Units</u>
Hydrocarbons (C8-C40)		57	6.6 U	mg/Kg
<u>Surrogate:</u>		<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
o-Terphenyl		115	105	51-148
Nonatriacontane		72	80	36-152
Date Prepared		01/20/04	01/20/04	
Date Analyzed		01/21/04 12:00	01/21/04 13:08	

U = Compound was analyzed for but not detected to the level shown.



**ENCO LABORATORIES**

**REPORT #** : JAX36762

**DATE REPORTED:** January 23, 2004

**REFERENCE** : BLDG 1338 LTCA

**PAGE 7 OF 8**

**LABORATORY CERTIFICATIONS**

Laboratory Certification: NELAC:E82277

All analyses reported with this project were analyzed by the facility indicated unless identified below.



## ENCO LABORATORIES

REPORT # : JAX36762

DATE REPORTED: January 23, 2004

REFERENCE : BLDG 1338 LTCA

PAGE 8 OF 8

## QUALITY CONTROL DATA

<u>Parameter</u>	<u>% RECOVERY</u> <u>LCS/MS/MSD</u>	<u>LCS</u> <u>LIMITS</u>	<u>MS/MSD</u> <u>LIMITS</u>	<u>RPD</u> <u>MS/MSD</u>	<u>RPD</u> <u>LIMITS</u>
<u>EPA Method 8260</u>					
1,1-Dichloroethene	70/ 61/ 59	59-144	19-161	3	19
Benzene	102/ 96/120	67-150	60-129	22	23
Trichloroethene	94/104/115	69-137	56-132	10	17
Toluene	96/ 81/ 86	72-124	53-129	6	22
Chlorobenzene	109/ 99/101	75-125	61-136	2	24
<u>EPA Method 8270</u>					
Naphthalene	76/ 77/ 78	48-88	20-131	1	29
Acenaphthene	76/ 79/ 79	57-96	24-132	<1	23
Benzo(a)pyrene	71/ 70/ 74	37-134	34-140	6	28
Benzo(g,h,i)perylene	100/ 96/101	11-145	31-152	5	21
<u>TOTAL METALS</u>					
Arsenic, 6010	109/109/109	77-125	53-153	<1	22
Barium, 6010	108/108/109	71-129	70-120	<1	16
Cadmium, 6010	101/100/101	76-124	59-130	<1	24
Chromium, 6010	106/104/105	81-130	57-135	<1	24
Lead, 6010	105/104/106	75-127	63-128	2	26
Selenium, 6010	103/100/101	72-127	60-121	<1	14
Silver, 6010	113/111/112	49-146	69-118	<1	10
Mercury, 7471	104/ * / *	78-130	69-121	*	18
<u>PETROL. RESIDUAL ORG.</u>					
Hydrocarbons (C8-C40)	86/135/113	50-116	62-204	18	25

&lt; = Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

\* = MS/MSD/RPD unavailable due to original sample concentration.





# ENVIRONMENTAL CONSERVATION LABORATORIES

QSARF # \_\_\_\_\_

4810 Executive Park Court, Suite 211  
Jacksonville, Florida 32216-6069  
Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive  
Orlando, Florida 32824-8529  
Ph. (407) 826-5314 • Fax (407) 850-6945

1015 Passport Way  
Cary, North Carolina 27513  
Ph. (919) 677-1669 • Fax (919) 677-9846

ENCO CompQAP No.: 960038G/0

## CHAIN OF CUSTODY RECORD

PROJECT REFERENCE		PROJECT NO.		P.O. NUMBER		MATRIX TYPE		REQUIRED ANALYSIS		PAGE	OF												
8189 1338 LTCA																							
PROJECT LOC. (State)	SAMPLER(S) NAME			PHONE		FAX																	
FL	Bob Bridgeman			296-0787		296-0748																	
CLIENT NAME		CLIENT PROJECT MANAGER																					
UES		Vincent Price																					
CLIENT ADDRESS (CITY, STATE, ZIP)																							
5561 Florida Mining Blvd S, Jax, FL																							
SAMPLE																							
STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION		SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	FL-PRO	8 PCRA Metal	8100 (PAHs)	8260	PRESERVATIVE	NUMBER OF CONTAINERS SUBMITTED	REMARKS	
1	1/20/04	12 pm	X		SS-1						X						✓	✓	✓	✓			
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
SAMPLE KIT PREPARED BY:					DATE	TIME	RELINQUISHED BY: (SIGNATURE)					DATE	TIME	RECEIVED BY: (SIGNATURE)					DATE	TIME			
JACKSONVILLE ORLANDO																							
RELINQUISHED BY: (SIGNATURE)					DATE	TIME	RECEIVED BY: (SIGNATURE)					DATE	TIME	RELINQUISHED BY: (SIGNATURE)					DATE	TIME			
Vincent Price					1/20/04	1:43p																	
RECEIVED BY: (SIGNATURE)					DATE	TIME	RELINQUISHED BY: (SIGNATURE)					DATE	TIME	RECEIVED BY: (SIGNATURE)					DATE	TIME			
RECEIVED FOR LABORATORY BY: (SIGNATURE)					DATE	TIME	CUSTODY INTACT	ENCO LOG NO.		REMARKS													
JACKSONVILLE ORLANDO					1/20/04	13:43	YES	AX307112		Samples received on wet ice													



## **APPENDIX C**

### **Laboratory Analytical Report**



Environmental Conservation Laboratories, Inc.  
4810 Executive Park Court, Suite 211  
Jacksonville, Florida 32216-6069  
904 / 296-3007  
Fax 904 / 296-6210  
www.encolabs.com



DHRS Certification No. E82277

CLIENT : Universal Engineering Sciences  
ADDRESS: 5561 Florida Mining Blvd South  
Jacksonville, FL 32257

REPORT # : JAX43178  
DATE SUBMITTED: September 20, 2004  
DATE REPORTED : September 27, 2004

PAGE 1 OF 14

ATTENTION: Mr. Dave Maxum

#### SAMPLE IDENTIFICATION

Samples submitted and  
identified by client as:

REFERENCE: MAYPORT BLDG 1342

09/20/04

JAX43178-1 : S-1 (2) @ 12:00'  
JAX43178-2 : GW-1 @ 14:40

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. This data has been produced in accordance with NELAC Standards (July, 2002). This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

Note: Analytical values are reported on a dry weight basis.

PROJECT MANAGER

A handwritten signature in black ink, appearing to read "Scott D. Martin", written over a horizontal line.  
Scott D. Martin



ENCO LABORATORIES

REPORT # : JAX43178  
 DATE REPORTED: September 27, 2004  
 REFERENCE : MAYPORT BLDG 1342

PAGE 2 OF 14

RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>S-1 (2)</u>	<u>Units</u>
Methyl tert-butyl ether	1.0 U D1	ug/Kg
Benzene	1.0 U D1	ug/Kg
Toluene	1.0 I D1	ug/Kg
Chlorobenzene	1.0 U D1	ug/Kg
Ethylbenzene	1.0 U D1	ug/Kg
m-Xylene & p-Xylene	2.0 U D1	ug/Kg
o-Xylene	1.0 U D1	ug/Kg
1,3-Dichlorobenzene	1.0 U D1	ug/Kg
1,4-Dichlorobenzene	1.0 U D1	ug/Kg
1,2-Dichlorobenzene	1.0 U D1	ug/Kg

Surrogate:

	<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane	90	61-128
D8-Toluene	83	77-119
Bromofluorobenzene	107	60-130
Date Prepared	09/20/04 16:45	
Date Analyzed	09/24/04 14:03	

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:1.02 dilution.

I = Analyte detected; value is between the Method Detection Level (MDL)  
 and the Method Quantitation Level (MQL).



ENCO LABORATORIES

REPORT # : JAX43178

DATE REPORTED: September 27, 2004

REFERENCE : MAYPORT BLDG 1342

PAGE 3 OF 14

RESULTS OF ANALYSIS

EPA METHOD 8270 -  
PAH Compounds by SIM

	<u>S-1 (2)</u>	<u>Units</u>
Naphthalene	41 U	ug/Kg
2-Methylnaphthalene	41 U	ug/Kg
1-Methylnaphthalene	41 U	ug/Kg
Acenaphthylene	41 U	ug/Kg
Acenaphthene	41 U	ug/Kg
Fluorene	41 U	ug/Kg
Phenanthrene	41 U	ug/Kg
Anthracene	41 U	ug/Kg
Fluoranthene	41 U	ug/Kg
Pyrene	41 U	ug/Kg
Chrysene	41 U	ug/Kg
Benzo(a)anthracene	41 U	ug/Kg
Benzo(b)fluoranthene	41 U	ug/Kg
Benzo(k)fluoranthene	41 U	ug/Kg
Benzo(a)pyrene	41 U	ug/Kg
Indeno(1,2,3-cd)pyrene	41 U	ug/Kg
Dibenzo(a,h)anthracene	41 U	ug/Kg
Benzo(g,h,i)perylene	41 U	ug/Kg

Surrogate:

	<u>% RECOV</u>	<u>LIMITS</u>
p-Terphenyl	112	19-162
Date Prepared	09/23/04	
Date Analyzed	09/24/04 14:58	

Miscellaneous

METHOD

S-1 (2)

Units

Percent Solids	WETS/72	81	%
Date Prepared		09/23/04	
Date Analyzed		09/23/04 11:00	

U = Compound was analyzed for but not detected to the level shown.



ENCO LABORATORIES

REPORT # : JAX43178

DATE REPORTED: September 27, 2004

REFERENCE : MAYPORT BLDG 1342

PAGE 4 OF 14

RESULTS OF ANALYSIS

EPA METHOD FLPRO -  
PETROL. RESIDUAL ORG.

Hydrocarbons (C8-C40)

S-1 (2)

Units

21

mg/Kg

Surrogate:

% RECOV

LIMITS

o-Terphenyl

104

51-148

Date Prepared

09/23/04

Date Analyzed

09/23/04 15:46

U = Compound was analyzed for but not detected to the level shown.



ENCO LABORATORIES

REPORT # : JAX43178

DATE REPORTED: September 27, 2004

REFERENCE : MAYPORT BLDG 1342

PAGE 5 OF 14

RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>GW-1</u>	<u>Units</u>
Methyl tert-butyl ether	1.0 U	ug/L
Benzene	1.0 U	ug/L
Toluene	1.0 U	ug/L
Chlorobenzene	1.0 U	ug/L
Ethylbenzene	1.0 U	ug/L
m-Xylene & p-Xylene	2.0 U	ug/L
o-Xylene	1.0 U	ug/L
1,3-Dichlorobenzene	1.0 U	ug/L
1,4-Dichlorobenzene	1.0 U	ug/L
1,2-Dichlorobenzene	1.0 U	ug/L

Surrogate:

	<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane	91	67-139
D8-Toluene	86	80-115
Bromofluorobenzene	107	66-131
Date Analyzed	09/23/04 22:02	

U = Compound was analyzed for but not detected to the level shown.



ENCO LABORATORIES

REPORT # : JAX43178

DATE REPORTED: September 27, 2004

REFERENCE : MAYPORT BLDG 1342

PAGE 6 OF 14

RESULTS OF ANALYSIS

EPA METHOD 8270 -  
PAH Compounds by SIM

	<u>GW-1</u>	<u>Units</u>
Naphthalene	0.50 U	ug/L
2-Methylnaphthalene	0.50 U	ug/L
1-Methylnaphthalene	0.50 U	ug/L
Acenaphthylene	0.10 U	ug/L
Acenaphthene	0.10 U	ug/L
Fluorene	0.10 U	ug/L
Phenanthrene	0.10 U	ug/L
Anthracene	0.10 U	ug/L
Fluoranthene	0.10 U	ug/L
Pyrene	0.10 U	ug/L
Chrysene	0.10 U	ug/L
Benzo(a)anthracene	0.10 U	ug/L
Benzo(b)fluoranthene	0.10 U	ug/L
Benzo(k)fluoranthene	0.10 U	ug/L
Benzo(a)pyrene	0.10 U	ug/L
Indeno(1,2,3-cd)pyrene	0.10 U	ug/L
Dibenzo(a,h)anthracene	0.10 U	ug/L
Benzo(g,h,i)perylene	0.10 U	ug/L

Surrogate:

	<u>% RECOV</u>	<u>LIMITS</u>
p-Terphenyl	96	20-148
Date Prepared	09/22/04	
Date Analyzed	09/24/04 12:35	

J = Compound was analyzed for but not detected to the level shown.



ENCO LABORATORIES

REPORT # : JAX43178

DATE REPORTED: September 27, 2004

REFERENCE : MAYPORT BLDG 1342

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RESULTS OF ANALYSIS

EPA METHOD FLPRO -  
PETROL. RESIDUAL ORG.

GW-1

Units

Hydrocarbons (C8-C40)

0.20 U

mg/L

Surrogate:

% RECOV

LIMITS

o-Terphenyl

89

38-133

Date Prepared

09/22/04

Date Analyzed

09/23/04 01:07

U = Compound was analyzed for but not detected to the level shown.



ENCO LABORATORIES

REPORT # : JAX43178

DATE REPORTED: September 27, 2004

REFERENCE : MAYPORT BLDG 1342

PAGE 8 OF 14

RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	LAB BLANK	Units
Methyl tert-butyl ether	1.0 U	ug/L
Benzene	1.0 U	ug/L
Toluene	1.0 U	ug/L
Chlorobenzene	1.0 U	ug/L
Ethylbenzene	1.0 U	ug/L
m-Xylene & p-Xylene	2.0 U	ug/L
o-Xylene	1.0 U	ug/L
1,3-Dichlorobenzene	1.0 U	ug/L
1,4-Dichlorobenzene	1.0 U	ug/L
1,2-Dichlorobenzene	1.0 U	ug/L

Surrogate:

	% RECOV	LIMITS
Dibromofluoromethane	94	67-139
D8-Toluene	90	80-115
Bromofluorobenzene	102	66-131
Date Analyzed	09/23/04 12:30	

U = Compound was analyzed for but not detected to the level shown.



ENCO LABORATORIES

REPORT # : JAX43178

DATE REPORTED: September 27, 2004

REFERENCE : MAYPORT BLDG 1342

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RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
Methyl tert-butyl ether	1.0 U	ug/Kg
Benzene	1.0 U	ug/Kg
Toluene	1.0 U	ug/Kg
Chlorobenzene	1.0 U	ug/Kg
Ethylbenzene	1.0 U	ug/Kg
m-Xylene & p-Xylene	2.0 U	ug/Kg
o-Xylene	1.0 U	ug/Kg
1,3-Dichlorobenzene	1.0 U	ug/Kg
1,4-Dichlorobenzene	1.0 U	ug/Kg
1,2-Dichlorobenzene	1.0 U	ug/Kg

Surrogate:

	<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane	101	61-128
D8-Toluene	96	77-119
Bromofluorobenzene	99	60-130
Date Analyzed	09/24/04 12:51	

U = Compound was analyzed for but not detected to the level shown.



ENCO LABORATORIES

REPORT # : JAX43178

DATE REPORTED: September 27, 2004

REFERENCE : MAYPORT BLDG 1342

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RESULTS OF ANALYSIS

EPA METHOD 8270 -  
PAH Compounds by SIM

	LAB BLANK	Units
Naphthalene	0.50 U	ug/L
2-Methylnaphthalene	0.50 U	ug/L
1-Methylnaphthalene	0.50 U	ug/L
Acenaphthylene	0.10 U	ug/L
Acenaphthene	0.10 U	ug/L
Fluorene	0.10 U	ug/L
Phenanthrene	0.10 U	ug/L
Anthracene	0.10 U	ug/L
Fluoranthene	0.10 U	ug/L
Pyrene	0.10 U	ug/L
Chrysene	0.10 U	ug/L
Benzo (a) anthracene	0.10 U	ug/L
Benzo (b) fluoranthene	0.10 U	ug/L
Benzo (k) fluoranthene	0.10 U	ug/L
Benzo (a) pyrene	0.10 U	ug/L
Indeno (1,2,3-cd) pyrene	0.10 U	ug/L
Dibenzo (a,h) anthracene	0.10 U	ug/L
Benzo (g,h,i) perylene	0.10 U	ug/L
Surrogate:	% RECOV	LIMITS
o-Terphenyl	99	20-148
Date Prepared	09/22/04	
Date Analyzed	09/24/04 11:08	

U = Compound was analyzed for but not detected to the level shown.



ENCO LABORATORIES

REPORT # : JAX43178

DATE REPORTED: September 27, 2004

REFERENCE : MAYPORT BLDG 1342

PAGE 11 OF 14

RESULTS OF ANALYSIS

EPA METHOD 8270 -  
PAH Compounds by SIM

	<u>LAB BLANK</u>	<u>Units</u>
Naphthalene	33 U	ug/Kg
2-Methylnaphthalene	33 U	ug/Kg
1-Methylnaphthalene	33 U	ug/Kg
Acenaphthylene	33 U	ug/Kg
Acenaphthene	33 U	ug/Kg
Fluorene	33 U	ug/Kg
Phenanthrene	33 U	ug/Kg
Anthracene	33 U	ug/Kg
Fluoranthene	33 U	ug/Kg
Pyrene	33 U	ug/Kg
Chrysene	33 U	ug/Kg
Benzo (a) anthracene	33 U	ug/Kg
Benzo (b) fluoranthene	33 U	ug/Kg
Benzo (k) fluoranthene	33 U	ug/Kg
Benzo (a) pyrene	33 U	ug/Kg
Indeno (1,2,3-cd) pyrene	33 U	ug/Kg
Dibenzo (a,h) anthracene	33 U	ug/Kg
Benzo (g,h,i) perylene	33 U	ug/Kg
<u>Surrogate:</u>	<u>% RECOV</u>	<u>LIMITS</u>
p-Terphenyl	113	19-162
Date Prepared	09/23/04	
Date Analyzed	09/24/04 14:00	

U = Compound was analyzed for but not detected to the level shown.



ENCO LABORATORIES

REPORT # : JAX43178  
 DATE REPORTED: September 27, 2004  
 REFERENCE : MAYPORT BLDG 1342

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RESULTS OF ANALYSIS

EPA METHOD FLPRO -  
 PETROL. RESIDUAL ORG.

Hydrocarbons (C8-C40)

Surrogate:

o-Terphenyl

Date Prepared

Date Analyzed

LAB BLANK

0.20 U

% RECOV

93

09/22/04

09/23/04 00:22

Units

mg/L

LIMITS

38-133

EPA METHOD FLPRO -  
 PETROL. RESIDUAL ORG.

Hydrocarbons (C8-C40)

Surrogate:

o-Terphenyl

Date Prepared

Date Analyzed

LAB BLANK

6.6 U

% RECOV

75

09/23/04

09/23/04 14:41

Units

mg/Kg

LIMITS

51-148

U = Compound was analyzed for but not detected to the level shown.



**ENCO LABORATORIES**

**REPORT #** : JAX43178

**DATE REPORTED:** September 27, 2004

**REFERENCE** : MAYPORT BLDG 1342

**PAGE 13 OF 14**

**LABORATORY CERTIFICATIONS**

Laboratory Certification: NELAC:E82277

All analyses reported with this project were analyzed by the facility indicated unless identified below.



## ENCO LABORATORIES

REPORT # : JAX43178

DATE REPORTED: September 27, 2004

REFERENCE : MAYPORT BLDG 1342

PAGE 14 OF 14

## QUALITY CONTROL DATA

<u>Parameter</u>	<u>% RECOVERY</u> <u>LCS/MS/MSD</u>	<u>LCS</u> <u>LIMITS</u>	<u>MS/MSD</u> <u>LIMITS</u>	<u>RPD</u> <u>MS/MSD</u>	<u>RPD</u> <u>LIMITS</u>
<u>EPA Method 8260</u>					
1,1-Dichloroethene	79/ 68/ 75	58-149	40-155	10	30
Benzene	82/ 79/ 78	79-136	70-131	1	23
Trichloroethene	101/ 94/103	66-136	68-128	9	10
Toluene	108/106/ 94	72-126	84-116	12	12
Chlorobenzene	110/106/ 98	77-124	88-123	8	11
1,1-Dichloroethene	91/ 76/ 85	59-144	19-161	11	19
Benzene	93/ 76/ 82	67-150	60-129	8	23
Trichloroethene	93/ 78/ 84	69-137	56-132	7	17
Toluene	97/ 85/ 92	72-124	53-129	8	22
Chlorobenzene	101/ 86/ 90	75-125	61-136	4	24
<u>EPA Method 8270</u>					
Naphthalene	86/ 84/ 82	32-86	30-112	2	28
Acenaphthene	97/ 87/ 84	47-90	28-113	4	32
Benzo(a)pyrene	90/ 92/ 90	39-129	39-148	2	38
Benzo(g,h,i)perylene	75/ 62/ 64	8-142	20-130	3	43
Naphthalene	88/ 70/ 54	48-88	20-131	26	29
Acenaphthene	98/ 76/ 58	57-96	24-132	# 27	23
Benzo(a)pyrene	101/ 72/ 66	37-134	34-140	9	28
Benzo(g,h,i)perylene	106/ 68/ 56	11-145	31-152	19	21
<u>PETROL. RESIDUAL ORG.</u>					
Hydrocarbons (C8-C40)	75/ 82/ 78	49-116	51-163	5	27
Hydrocarbons (C8-C40)	73/105/ 85	50-116	62-204	21	25

&lt; = Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

# = One or more of the associated values failed to meet laboratory established limits for precision.



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Cary, North Carolina 27513  
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ENCO CompQAP No.: 960038G/0

## CHAIN OF CUSTODY RECORD

[illegible]



## **APPENDIX D**

### **Limited Closure Summary Report**





# Department of Environmental Protection

1 Towers Office Building • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DEP Form 62-761.900(8)  
Form Title: Limited Closure  
Summary Report  
Effective Date: 7/13/98

## Limited Closure Summary Report

This form is required for facilities that have sites with documented contamination requiring a site assessment in accordance with Chapter 62-770, F.A.C. This includes those facilities that are eligible for the Early Detection Incentive Program (EDI), the Florida Petroleum Liability and Restoration Insurance Program (FPLRIP), and the Petroleum Cleanup Participation Program (PCPP), pursuant to Sections 376.3071 and 376.3072, F.S. Documentation of procedures followed, and results obtained during closure shall be reported in this form, along with any attachments. This form shall be submitted to the County within 60 days of completion of the closure in accordance with Section A of the "Storage Tank System Closure Assessment Requirements."

Complete All Applicable Blanks. Please Print or Type

### General Information

Date <u>11/24/04</u>	FDEP Facility ID Number _____	County <u>Duval</u>
Facility Name <u>Mayport Naval Base</u>		Facility Telephone #: <u>(904) 270-6730</u>
Facility Address: <u>Bldg. 1338, Lamp Rel., Mayport, Florida</u>		
Owner or Operator Name: <u>Maurice Cates</u>		Owner/Operator phone #: <u>(904) 778-9906</u>
Mailing Address: <u>Johnson Controls/H.I.I., PO Box 77, Bldg. 105, NAS Jacksonville</u>		

### Storage Tank System Closure Information

1. Were the storage tanks(s): (Check one or both)

<input type="checkbox"/> Aboveground	<input checked="" type="checkbox"/> Underground
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2. General System Information

Types of Products Stored: <u>Waste Oil</u>	Number of Tanks Closed <u>1</u>	Age(s) of Tanks _____
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3. Was the Limited Closure Summary Report Performed as a Result of: (check one or more)

<input type="checkbox"/> Tank Systems Removal?	<input type="checkbox"/> Spill Containment Installation?	<input type="checkbox"/> Change in Storage to a Non-Regulated Substance?
<input type="checkbox"/> Tank Systems Closed in Place?	<input type="checkbox"/> Dispenser Liners Installation?	<input type="checkbox"/> Release Prevention Barrier Installation?
<input type="checkbox"/> Piping Sump Installation?	<input type="checkbox"/> Secondary Containment Installation?	<input type="checkbox"/> Other? (please explain) <u>Sump System Removal and Replacement</u>

4. Please Check Yes or No to the following:

a. Was there previously reported contamination discovered on site? If yes, was	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1. A Discharge Report Form submitted to the County?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. An investigation performed in accordance with Rule 62-761.820, F.A.C.?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
b. Is the depth to groundwater less than 20 feet?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
c. Are there monitoring wells on site? If yes, were they	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1. Groundwater monitoring wells?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2. Vapor monitoring wells?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
3. Used for closure assessment sampling?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
4. Properly closed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5. Retained for site assessment purposes?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
d. If tanks were replaced, were contaminated soils returned to the tank excavation?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Signature of owner or operator

Signature of person performing  
Limited Closure Assessment

Name of person performing  
Limited Closure Assessment

(date)

(date)

11/29/04

Affiliation

UES

Printed on recycled paper.